

heater being able to be actuated to add heat to the surface of the substrate thermally coupled to the interior of the vessel, and upper, intermediate and lower sensors mounted on said substrate in proximity to said heater, said upper sensor being at a higher elevation relative to said lower sensor, said intermediate sensor being at an elevation between said upper and lower sensors, said upper and lower sensors being thermally coupled to the interior of the vessel to detect the temperature therein in proximity to said upper and lower sensors, said upper and lower sensors being able to be actuated to generate respective electrical signals each defining a temperature signal indicative of said temperatures detected by said upper and lower sensors, said intermediate sensor being mounted on said substrate such that discrete elevations of the interior of the vessel are thermally coupled to corresponding longitudinal portions of said intermediate sensor to detect the temperature in the vessel in proximity to the sensor, said correspondence being incrementally continuous such that the elevations corresponding to said portions of said intermediate sensor increase from one to the other of the ends of said intermediate sensor, said intermediate sensor being able to be actuated to generate an electrical signal defining a temperature signal indicative of the temperature detected by said intermediate sensor, said intermediate sensor having a vertical dimension sufficiently large such that said temperature signal will vary in proportion to said longitudinal portion of said intermediate sensor thermally coupled to the liquid;

a processor electrically connected to each of said sensors for receiving said temperature signals after actuation of said heater, said processor being programmed to use said temperature signals to calculate the elevation of the upper surface of the liquid in the vessel thereby to generate an electrical signal defining an elevation signal indicative of the elevation of the liquid upper surface;

an interface electrically connected to said processor for receiving said elevation signal for use as the basis for communicating to the user the elevation of the liquid upper surface; and

a power supply electrically connected to said heater, intermediate sensor, lower sensor, upper sensor, processor, and interface, and

wherein said intermediate sensor comprises a potentiometer wherein the resistance to electrical conductivity of said intermediate sensor varies in proportion to the temperature detected by it, said temperature signal being equal to said resistance, said programming of said processor comprising using said temperature signal to measure said resistance of said intermediate sensor, said programming further comprising using said resistance to calculate the elevation of the liquid upper surface.